Type No. 9629, U. S. Nat. Mus.

One male, taken by C. B. Doyle, at an altitude of 2950 meters at Tierra Adentro, Central Cordillera, Dept. of Cauca, Colombia, South America, headwaters of the Palo River, in January, 1906.

This interesting insect, which is named after the collector, is easily distinguished from the other members of the genus by the elongate form and especially by the coloration of the head.

## A Rock-boring Mite.

By Nathan Banks.

In the fall of 1904, Prof. J. H. Comstock sent me some pieces of rocks taken from a limestone cliff that is moistened by the fall of water. The surface contained numerous small cavities or pits of varying sizes. Most of them had a narrowed orifice, and within each pit was found a mite, approximately of the size of the pit. Although, of course, a mite of such habits must be called "*petrophagus*," I have no idea that rock forms any part of its diet. The surface of the stone to a short depth is somewhat softened, doubtless by the action of the water, and it is probable that in the minute holes and passages of this softened area there is growing some tiny plant-organism that forms the food of this cave-digging mite. From all appearances the cavities are caused by the mite, and increase in size with the growth of the acarian. Possibly the mite has some secretion that aids in the destruction of the stone.

Remarkable as are the habits of this mite, its structure, save that it belongs to a rather peculiar genus, is not exceptional. This habit is the necessary consequence of the conditions of its existence, for if the mite should try to live free on the surface of the rock it would be washed away by storms. To escape, therefore, the ravages of the elements it takes to the cyclone cellar. Migration must be performed over the surface of the stone, but it is probable that the young issue at a season when the stone is not subject to heavy storms.

On microscopic examination the mite is seen to belong to the family Oribatidæ, or beetle-mites, and to the genus *Scutovertex* of Michael. We have, at least, one other species of this

genus in our country, the *S. marinus* Banks, that occurs on the surface of boulders between tide-marks along the Long Island shore. *S. marinus* is usually found in small depressions of the stone, but forms no cavities; and when the tide is out one can find a few wandering over the rock. Four species of *Scutovertex* are known in England, one was found in moss; one on lichen near the seashore, and two on algæ in fresh-water pools near the seashore. Michael has described a species as taken from marine algæ at Terra del Fuego.

The new species I describe as follows:

**Scutovertex petrophagus** n. sp.

Rather uniform dark brown, a pale spot on middle of base of abdomen above. Body moderately elongate, roughened above; median area of cephalothorax with transverse ridges. Pseudostigmatic organs short, clavate. A ribbed lamella-like area around base of abdomen. Abdomen above with scattered rugosities and 3 more or less definite stripes of interlaced ridges; at apical margin with 4 short, subequal stiff bristles each side. The legs are rather long and heavy, the femora obliquely roughened above near tips, and also on the trochanters; tarsi very short, and more hairy than other joints, but one claw to each leg. Venter finely and irregularly rugose, the coverings of the apertures being longitudinally rugose. The genital opening is about as broad as long, and scarcely its length in front of the larger and more elongate anal opening. The immature stages have a transversely corrugate dorsum. Length 4 mm.

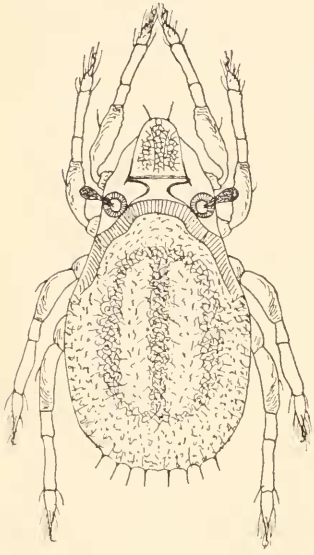

Fig. 1.—*Scutovertex petrophagus.*

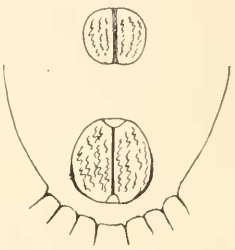

Fig. 2.—Venter.

Fig. 3.—Tarsus and claw.

Inhabits cavities in the surface of wet rock. Traghanic Falls, near Ithaca, N. Y. This genus is best separated from *Carabodes* by the fact that the tibiæ of legs are not pedicellate.